

BELYUSTIN, A.V.; PORTNOV, V.N.

Effect of the form and motion of a crystal on the rate of growth
of its faces. Kristallografiia 7 no.2:276-279 Mr-Apr '62.
(MIRA 15:4)

1. Issledovatel'skiy fiziko-tekhnicheskii institut pri Gor'kovskom
universitete imeni N.I.Lobachevskogo.
(Crystals--Growth)

24,7100

SC145
S/070/62/007/002/011/022
E132/E160

AUTHORS: Belyustin, A.V., and Portnov, V.N.

TITLE: The influence of motion and the facial development
of a crystal on the rate of growth of its faces

PERIODICAL: Kristallografiya, v.7, no.2, 1962, 276-279

TEXT: The rate of growth of faces on crystals of potassium aluminium alum was measured under a variety of conditions. Crystals with natural faces and ground spheres with dimensions about 15-20 mm were used and they were grown in a solution with 2 g/l supersaturation (at 20 °C) sometimes with movement and sometimes without. In dynamic conditions the rate of growth of faces depends more strongly on the state of the surroundings than under static conditions. Planetary and axial rotation exaggerate the rate of growth of those faces which grow more rapidly under static conditions. This is most evident for faces developing on a sphere. The influence of the form and motion of the crystal on the relative growth of its faces can be best explained by the different supersaturations

Card 1/2

The influence of motion and the ...

S/070/62/007/002/011/022
E132/E160

over crystallographically different faces and by the consequent redistribution of solute.

There is 1 table.

ASSOCIATION: Issledovatel'skiy fiziko-tekhnicheskiy institut
pri Gor'kovskom universitete im. N.I. Lobachevskogo
(Physicotechnical Research Institute at Gor'kiy
University imeni N.I. Lobachevskiy)

SUBMITTED: March 17, 1961

Card 2/2

I 21124-66 EWT(1)/T LJP(c) GG
ACC NR: AP6011960

SOURCE CODE: UR/0070/65/010/003/0362/0367

AUTHOR: Portnov, V. N.; Belyustin, A. V.

ORG: Gor'kiy Physicotechnical Research Institute (Gor'kovskiy issledovatel'skiy fiziko-tekhnicheskiy institut)

TITLE: Effect of impurities on rate of growth of aluminum potassium sulfate crystal faces from solution

SOURCE: Kristallografiya, v. 10, no. 3, 1965, 362-367

TOPIC TAGS: crystal growth, crystallization, crystal impurity, crystal surface, sulfuric acid

ABSTRACT: The method of spherical crystallization was used to study the growth rate of the (111), (110), (100), (221), and (211) faces of $KAl(SO_4)_2 \cdot 12H_2O$ from solutions in the presence of $CuSO_4 \cdot 5H_2O$, H_2SO_4 , Bismarck-brown dye, KOH, NaOH, and Borax. The initial spherical form provides many faces for measurement, and the spherical shape is maintained because the growth rate of the faces depends strongly on the shape of the crystal. Growth rates of the different faces as a function of concentration are plotted for the various impurities. Na_2SO_4 and $CuSO_4 \cdot 5H_2O$ behave similarly in that they decelerate the growth rate of all faces more or less uniformly with increasing concentration. H_2SO_4 , on the other hand, slightly accelerates the growth of all faces, especially the (221) face. Bismarck brown seriously damages the (211) and (221) faces and severely decelerates the growth of the other faces, apparently because it is absorbed on the crystal surfaces.

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UDC: 548.523

L 21124-66

ACC NR: AP6011960

The effect of KOH (NaOH behaves similarly) is much more complex. As the pH rises, the growth rate of all faces decreases, and the growth rate of the (100) face experiences a rather abrupt drop almost to zero, apparently due to the formation of a new substance.

Borax has the most complicated decelerating influence on the growth rates. Similarity of its effect on the (100) and (211) faces with that of Bismarck brown indicates that they act in the same fashion despite the fact that they have no other apparent similarity.

Conclusions reached indicate that absorption of the impurity on the crystal faces (primarily the cubic) strongly affects growth rates either directly or through the chemical formation of other substances. The faces (111), (221), and (110) are actively affected by the pH of the solution. Large ion concentrations affect all faces more or less uniformly. The authors thank Academician A. V. Shubnikov for discussions and valuable advice. Orig. art. has: 2 figures. [JPRS]

SUB CODE: 20, 07 / SUBM DATE: 08Jul64 / ORIG REF: 005 / OTH REF: 001

Card 2/2 ddr

PORTNOV, V.N.; BELYUSTIN, A.V.

Effect of impurities on the rate of growth of the faces of
potassium aluminosilicates from a solution. Kristallografiia
10 no.3:362-367 My-Je '65. (MIRA 18:7)

1. Gor'kovskiy fiziko-tehnicheskii institut.

L 20813-66 EWT(d)/T IJP(c)

ACC NR: AP6012030

SOURCE CODE: UR/0020/65/160/003/0545/0548

AUTHOR: Portnov, V. R.

23

ORG: Mathematics Institute, Siberian Branch, AN SSSR (Institut matematiki Sibirskogo otdeleniya AN SSSR)

B

TITLE: Theorem on the density of finite functions in weight classes

SOURCE: AN SSSR. Doklady, v. 160, no. 3, 1965, 545-548

TOPIC TAGS: differential equation, nonlinear differential equation

ABSTRACT: Theorems on the density of a set of ^{16; 44, 55} finite functions in weightless spaces were first proven by S. L. Sobolev. A similar result has been established by the author for $\omega = E_n$. Here are given more general results for bounded and unbounded spaces which have a simple boundary in the sense of Sobolev. An example of the solution of a non-linear system of differential equations is given. This paper was presented by Academician S. L. Sobolev on 9 July 1964. The author thanks S. L. Sobolev and L. D. Kudryavtsev for their interest in this work and for the discussions of the results. Orig. art. has: 4 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 04Jul64 / ORIG REF: 005

Card 1/1 *LOC*

2

L 36091-66 EMT(d) IJP(c)

ACC NR: AP6015076

SOURCE CODE: UR/0020/66/168/001/0028/0031

AUTHOR: Portnov, V. R.

23
E

ORG: none

TITLE: The first boundary value problem for one class of equations and systems

SOURCE: AN SSSR. Doklady, v. 168, no. 1, 1966, 28-31

TO IC TAGS: first boundary value problem, Euclidean space, vector function, differential operator, set theory, differential equation solution

ABSTRACT: Systems of equations and the spaces connected with them that do not reduce in general to S. L. Sobolev's spaces with or without weighting are examined. Together with derivatives, differential expressions of a definite order are present in the metrics of the spaces. The vector function $u(x) = (u_1(x), \dots, u_M(x))$ has in Ω a generalized (in the sense of S. L. Sobolev) differential expression

$$\omega = \mathcal{L}u = \sum_{j=1}^M \mathcal{L}^{(j)} u_j$$

where $\mathcal{L}^{(j)}$ is some differential operator with constant coefficients, if ω , $u_1, \dots, u_M$ are locally integrable, and for any $\bar{v}(x) \in C_0^\infty(\Omega)$

$$\int_{\Omega} \left(\omega v - \sum_{j=1}^M u_j \mathcal{L}^{(j)*} v \right) d\Omega = 0.$$

Card 1/2

UDC: 517.944

PORTNOV, V.R.

Theorem on the density of finite functions in $L_{p,1}^{(m)}(\mathbb{R}_n)$ space.
Dokl. AN SSSR 154 no. 3:530-533 Ja '64. (MIRA 17:5)

1. Institut matematiki s vychislitel'nym tsentrom Sibirskogo
otdeleniya AN SSSR.

PORTNOV, V.R.

Two imbedding theorems for $L_{p,b}^{(1)}(\Omega, \chi_+)$ space and their uses.
Dokl. AN SSSR 155 no. 4:761-764 i 64. (MIRA 17:5)

1. Institut matematiki s vychislitel'nyy tsentrom Sibirskogo
otdeleniya AN SSSR. Predstavleno akademikom S.L.Sobolevym.

L 16170-65 EWT(d) IJP(c)

ACCESSION NR: AP4046127

S/0199/64/005/005/1195/1199

AUTHOR: Portnov, V. R.

TITLE: An asymptotic estimate for the extremal function of cubature formulas for half spaces ¹⁶ ^B

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 5, no. 5, 1964, 1195-1199

TOPIC TAGS: asymptotic estimate, extremal function, cubature formula, real analysis, Euclidean space

ABSTRACT: Assume that in the n -dimensional Euclidean space R_n of vectors $x=(x_1, \dots, x_n)$ we are given a parallelepipedal grid with fundamental parallelepiped Ω having a face T_0 in the hyperplane $x_1 = 0$, and let H be the matrix of the transformation mapping the unit cube of the hyperplane $x_1 = 0$ into T_0 . Now, instead of considering the entire space R_n , consider some domain Ω ; then all parallelepipeds having nonempty intersections with Ω split into two groups: a) the interior parallelepipeds, which, together with the nodes corresponding to a

Card 1/2

L 16170-65

ACCESSION NR: AP4046127

cubature formula, lie in Ω , and b) the remaining parallelehedrons, to which new cubature formulas with their nodes entirely contained in Ω correspond. Now, assume that Ω is the halfspace $x_1 \leq -1$. The extremal function for the corresponding cubature formula can be written in the form

$$U_+(x) = \sum_{\beta: \Omega_\beta \subset \Omega} U_\beta(x),$$

where $U_+(x)$ is the extremal function of the parallelehedron Ω_+ . If the same cubature formulas are constructed for the parallelehedrons in the second group, then $U_+(x)$ is, for any fixed x_1 , a periodic function of the variables $x_2, x_3, \dots, x_n$ with period matrix H . For each parallelehedron the author constructs a cubature formula in such a manner that it is exact on polynomials of degree $p > 2m - |\alpha| - 1$, where α is an n -dimensional non-negative integer vector. Moreover, in this case $D^\alpha U_+(x)$ decreases exponentially as $x \rightarrow \infty$. "The author would like to thank Academician S. L. Sobolev, under whose direction this paper was written." Orig. art. has: 12 equations.

ASSOCIATION: None

SUBMITTED: 19Mar63

SUB CODE: MA

ENCL: 00

NO REF SOV: 001

OTHER: 000

Card 2/2

POTTHOV, Ya.

Art of pictorial journalism. Sov. foto 19 no.5:7-11 My '88.
(MIRA 12:9)

(Journalism, Pictorial)

PORTNOV, Ya.; ASTRETISOV, V.

Controlling the technological process at flour mills with
the help of instruments for automatic and remote control of
consumption. Muk.-elev.prom. 25 no.9:15-17 S '59.

(MIRA 12:12)

1. Sverdlovskiy mukomol'no-elevatornyy tekhnikum (for Portnov).
2. Mel'nitsa No.2 v Sverdlovske (for Astretsov).
(Measuring instruments)
(Flour mills--Equipment and supplies)

SAVVIN, L., inzh. (Moldaviya); YEKHLAKOV, A., inzh. (Sverdlovsk);
TRUSOV, I., inzh. (Frunze); IVANOV, N.; PLAKSEYEV, G. (Kherson);
KNOROZ, M. (L'vov); GROMENKO, P., rabochiy (Novosibirsk);
TARASOV, O. (Novorossiysk); D'YAKOV, P., inzh. (Kamensk-
Shakhtinskiy); BUTUSOV, V., dotsent (Moskva); SUNDAKOV, M.,
inzh., student; PORTNOV, Ya., kand. tekhn. nauk (Makhachkala);
PETROV, Yu., inzhener-stroitel' (Ivanovo)

Readers argue, agree, advise. Tekh. mol. 31 no.6:6-9 '63.

(MIRA 16:7)

1. Starshiy inzhener Usol'skogo mashinostroitel'nogo zavoda
(for Ivanov). 2. Moskovskoye vyssheye tekhnicheskoye
uchilishche imeni Baumana (for Butusov). 3. Zaochnoye otdeleniye
fakul'teta zhurnalistiki Leningradskogo gosudarstvennogo
universiteta (for Sundakov).
(Technological innovations)

PORTNOV, Ya.

Sports Palace. IUn. tekhn. no.3:6-12 Mr '57.
(Moscow--Public buildings)

(MIRA 10:4)

PORTNOV, Ya.L., kand.tekhn.nauk; AGAPOV, V.P., inzh.

Transient processes in the drying chambers and selection of the regulating system. Der.prom. 10 no.5:1-4 My '61. (MIRA 14:5)

1. Sverdlovskiy nauchno-issledovatel'skiy institut pererabotki drevesiny.

(Lumber--Drying)

PORTNOV, L.N.

Errors in the diagnosis and treatment of hydronephrosis in children. Vest. khir. 92 no.4:121-124 Ap '62 (MIRA 18:1)

1. Iz kliniki khirurgii detskogo vozrasta (zav. - prof. M.K. Georgiu) Kishinevskogo meditsinskogo instituta i respublikanskoy klinicheskoy detskoy bol'nitsy (glavnyy vrach S.S. Strungaru). Adres avtora: Kishinev, Meditsinskiy institut, klinika khirurgii detskogo vozrasta.

PORTNOV, Z.M.

Problem of bladder and ureteral reflux in children with
anomalies in the development of the urinary tract. Trudy
Kish. gos. med. inst. 24:237-243 '64 (MIRA 18:1)

STREL'TSOVA, A.A.; LEVASHOVA, L.A.; PORTNOVA, M.N.

Analysis of nitrosyl chloride, hydrogen chloride, and nitric oxide. Zav. lab. 30 no.11:1321-1322 '64 (MIRA 18:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza.

LYUBIMOV, V.B.; MU TSZUN^a [Mu TSun]; PODGORETSKIY, M.I.;
PORTNOVA, S.I.; STREL'TSOV, V.N.; TRKA, Z.

Production of δ -quanta in the interaction between γ Bev.
 π^- -mesons and nucleons. Zhur. eksp. i teor. fiz. 44 no.2:
760-763 F '63. (MIRA 16:7)

1. Ob'yedinennyy institut yadernykh issledovaniy.

SHCHIPANOV, V.P.; PORTNOVA, S.L.; KRASNOVA, V.A.; SHEYNKER, Yu.N.;
POSTOVSKIY, I. Ya.

Structure and spectra of 5-aminotetrazoles and their acyl
derivatives. Zhur. org. khim. 1 no. 12:2236-2244 D '65
(MIRA 19:1)

1. Ural'skiy politekhnicheskii institut imeni Kirova i Institut
khimii prirodnikh soyedineniy AN SSSR. Submitted December 9,
1964.

PORTNOVA, S.L.; RZHEZNIKOV, V.M.; ANANCHENKO, S.N.; SHEYNKER, Yu.N.;
TORGOV, I.V.

Nuclear magnetic resonance of some D-homosteroids. Dokl. AN
SSSR 166 no.1:125-128 Ja '66.

(MIRA 19:1)

1. Submitted March 27, 1965.

L 26061-66 EWT(1) RO

ACC NR: AP5025126

SOURCE CODE: UR/0079/65/035/010/1771/1774

AUTHOR: Mel'nikov, N. N.; Grapov, A. F.; Razvodovskaya, L. V.; Portnova, S. L.

ORG: All-Union Scientific Research Institute for Plant Protection (Vsesoyuznyy nauchno-issledovatel'skiy institut zashchiti rasteniy)

TITLE: Herbicides and plant growth regulators; XLIII. The reaction of acid chloride of N,N-dimethylamidomethylphosphonic acid with anilines

SOURCE: Zhurnal obshchey khimii, v. 35, no. 10, 1965, 1771-1774

TOPIC TAGS: pesticide, plant growth, phosphonic acid, ^{organic} phosphorus compound, aniline, organic amide, IR spectrum, electron paramagnetic resonance
ABSTRACT: Continuing the work on the search for new effective chemical agents for plant protection, the reaction of acid chloride of dimethylamidomethylphosphonic acid with anilines was studied. The reaction occurs in two directions. Depending on the nature of the solvent and the substitute N,N-dimethyl-N'-aryldiamidomethylphosphonates or N,N'-diaryldiamidomethylphosphonates form in the benzol ring of aniline. In the aniline benzol, m and n-chloranilines and m-toluidine form symmetrical diamides, and n-toluidine forms an asymmetrical diamide of methylphosphonic acid. In chloroform, n-chloraniline and m and n-toluidines

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UDC: 632.954

L 26061-66

ACC NR: AP5025126

2.
form asymmetrical diamides, aniline forms a symmetrical diamide, m-chloraniline forms a mixture of an asymmetrical and symmetrical diamide of methylphosphonic acid. Aniline in an acetone and petroleum ester forms an asymmetrical diamide. The structure of compounds obtained is confirmed by intensity measurements of the symmetrical valence oscillation band of the benzol ring in infrared spectra (1600 cm^{-1}) and paramagnetic resonance spectra. We thank A. F. Vasil'yev and V. V. Galushina for the infrared spectra research. Orig. art. has: 1 fig. and 1 table.

SUB CODE 06, 07, 20/67 BDM DATE: 30Jun64/ ORIG REF: 001/ OTH REF: 002

Card 2/2 *ph*

Portyanko, V. F.

✓ Utilization of hydrogen peroxide in experiments with water cultures and for rooting of cuttings. V. F. Portyanko (P. D. Osipenko State Pedagog. Inst., Osipenko). *Izv. Rastentz* 3, 333-6(1958).--Expts. with wheat, beans, and sunflower showed high catalase activity in the plant roots. Thus, in water plant cultures improved aeration can be attained by adding H_2O_2 to the medium. This method is more effective than phys. aeration. Heteroauxin activity is enhanced by H_2O_2 . G. M. Kosolapoff

PORTYANKO, V.F.

Yarovization stage in corn. Agrobiologiya no.3:28-30 My-Je '56.
(MLRA 9:9)

1.Osipenkovskiy gosudarstvennyy pedagogicheskiy institut imeni
P.D.Osipenko.
(Corn (Maize)) (Vernalization)

PORTYANKO, V.F.

Using hydrogen peroxide in experiments on raising plants in water solutions and for speeding up the rooting of cuttings. Fiziol.rast. 3 no.4:333-336 J1-Ag '56. (MIRA 9:9)

1.Gosudarstvennyy pedagogicheskiy institut imeni P.D.Osipenko, g. Osipenko.
(Hydrogen peroxide--Physiological effect)(Plants--Soilless culture)

AUTHOR: Portnov, V.I. SOV/19-58-6-32/685

TITLE: An Arrangement for Measuring the Pressure in the Space Beyond the Pipe String Through Lift Pipes (Ustroystvo dlya zamera davleniya v zatrubnom prostranstve cherez pod"yemnyye truby)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, p 11 (USSR)

ABSTRACT: Class 5a, 40¹⁰. Nr 113311 (586352 of 21 October 1957). Submitted to the Committee for Inventions and Discoveries at the Ministers Council of USSR. A device for measuring the pressure in the space beyond the pipes, through the lift pipes during the operation of a depth pump, and a depth manometer. To get the manometer out without lifting the pump, it is provided with a "transplacer" (perevodnik) with self-packing collars which enter a seat in the

Card 1/2

SOV/19-58-6-32/685

An Arrangement for Measuring the Pressure in the Space Beyond the
Pipe String Through Lift Pipes

lift pipes coupling when the manometer is lowered.
This seat is perforated for communication with the
space to be measured.

Card 2/2

PORTNOV, V. I.

"Use of aromatic compounds of arsenic in chemical analyses: 11, the arsenic method for determining cobalt." (p. 601)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1948, Volume 18, No. 4

PORTNOV, V. P.

PORTNOV, V. P.- "Use of Artificial Burdens in Training for High Jump from Running Start." State Central Order of Lenin Inst of Physical Culture imeni I. V. Stalin, Moscow, 1955 (Dissertations for the Degree of Candidate of Pedagogical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

PORTNOV, Ya.

Building standard projects. Tekh.mol.24 no.3:18-19 Mr '56.
(Precast concrete construction) (MIRA 9:7)

Vorilov, Ya.

PORTNOV, Ya., kandidat tekhnicheskikh nauk; RUDOY, M., inzhener

Improving the operation of hammer mills. Muk.-elev.prom.21 no.9:
22-23 S'55. (MLRA 8:12)

(Grain-milling machinery)

PORTNOV, Ia.

A beach under the Arctic sun. Nauka i zhizn' 29 no.7:8-9 J1 '62.
(MIRA 16:6)
(Arctic regions--Rest homes)

PORTNOV, Ya., kand.tekhn.nauk

Automation at the Sverdlovsk Flour Mill No. 2. Muk-elev.prom. 25
no.1:20-23 Ja '59. (MIRA 12:3)

1. Sverdlovskiy mukomol'no-elevatornyy tekhnikum.
(Sverdlovsk--Flour mills)

PORTNOV, Yak.

Here will be a "satellite-city." IUn.tekh. 3 no.4:37-40 Ap '59.
(MIRA 12:4)

(City planning)

PORTNOV, Ya.

Communist youth construction in Luzhniki. Tekh.mol.23 no.9:13
S'55.

(MLRA 8:12)

(Moscow--Stadiums)

PORTNOV, Ya., kand.tekhn.nauk

"Invisible" obstacles in creative thinking. Izobr.i rats. no.12:47-48
D '58. (MIRA 11:12)

(Inventors)

PORTNOV, Ya.

Light-weight house. IUn.tekh. 3 no.12:33-36 D '58.

(MIRA 12:1)

(Building research)

PORTNOV
PORTNOV, Ya.

Vibrator mill. Tekh. mol. 23 no.8:28-31 Ag'55. (MIRA 8:11)
(Milling machinery)

PORTNOV, Ya.

~~precise construction~~

In a house-building factory. Tekh.mol. 23 no.1:19-23 Ja'55.
(Precast concrete construction) (MIRA 8:3)

PORTNOV, Ya.
PORTNOV, Ya.

Nature, books and work; an interview with I.V. Zholtovskii [akademik
arkhitektury]. IUn. tekhn. 2 no.2:57-63 P '58. (MIRA 11:2)
(Zholtovskii, Ivan Vladislavovich, 1867-)

PORTNOV, Ya., kandidat tekhnicheskikh nauk; YUZIKEYEV, E., inzhener.

Using sewing machines. Muk.-elev.prom. 20 no.6:25-26 Ja '54.
(MLRA 7:8)

1. Sverdlovskiy mukomol'no-elevatornyy tekhnikum (Portnov) 2. Mel'-
nitsa No.3 Sverdlovskogo tresta Glavmuki (Yuzikayev).
(Sewing machines)

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PRECEDENCE AND PRIORITY INDEX																										PRECEDENCE AND PRIORITY INDEX																									
<i>12</i> The content of tin in canned vegetables. Ya. L. Portnov. <i>Konservnaya Prom.</i> 1936, No. 4, 16-21. The content of Sn depends primarily upon the pH of the initial material. Solvent action on tin decreases in the order tomatoes, eggplant, carrot and pepper. Fat in preserved food retards the soln. of Sn. Other components and the method of processing also affect the soln. The portion of preserved food which contains the least Sn is the vegetable; the jelly, the most. The skin of the vegetable lessens the action upon the surface of Sn at points of contact. Since the soln. of Sn continues a long time after sterilization, analysis for Sn 10 days after sterilization does show the Sn content of the product kept longer. R. V. Shvartsberg																										<i>12</i>																									
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The Content of Tin in Canned Vegetables. Ya. L. Partovoy (*Konservirovaniye Proizvodstvennoy* [Canning Ind., 1944, (4), 10-21; *Zh. Tekh. Khim.*, 1937, 81, 2307]. [*In Russian.*]) The content of tin depends primarily on the pH of the initial material. Solvent action on tin decreases in the order tomatoes, eggplant, carrot, and pepper. Fat in preserved food retards the solution of tin. Other components and the method of processing also affect solution. The portion of preserved food which contains the least tin is the vegetable; the jelly of preserved food which contains the most. The skin of the vegetable lessens the action on a surface of tin at points of contact. Since the solution of tin continues a long time after sterilization, analysis for tin 10 days after sterilization does show the tin content of the product kept longer.—S. G.

PORTNOV, Ya.L.; KHUCHRAYEV, M.Sh.; KHUDADATOV, N.I.

Remote control of autoclaves. Kons. 1 ov. prom. 18 no.8:
5-7 Ag '63. (MIRA 16:8)

1. Dagestanskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti.
(Autoclaves) (Remote control)

PORTNOV, Ya.L.; ROMANOV, V.G.

Effect of the inertia characteristics of transducers on the
accuracy of the control of drying processes. Der.prom. 10
no.12:7-8 D '61. (MIRA 14:12)

1. Sverdlovskiy nauchno-issledovatel'skiy institut pererabotki
drevesiny.

(Lumber---Drying)
(Temperature regulators)

PORTNOV, Z.M.

Diagnosis and treatment of kidney tumors in children. Zdravo-
okhraneniye 6 no.1:30-35 J-F'63. (MIRA 16:8)

1. Iz kafedry detskoy khirurgii (zav. kafedroy - prof. N.K.
Georgiu) Kishinevskogo meditsinskogo instituta i Moldavskoy
respublikanskoy detskoy klinicheskoy bol'nitsy (glavnyy
vrach S.S.Strungaru).
(KIDNEYS—Cancer) (CHILDREN—DISEASES)

PORTNOV-SOKOLOV, YU. P.

"K. E. Tsiolkovskiy - The Inventor of the Automatic

Pilot", Avtomat. i. Telemekh. 10. No. 6, 1949. *p. 464-66*

PORTNOV-SOKOLOV, Yu. P.

"A Brigade of Scientists at the Construction of the Volga-Don Navigable Canal,"
Avtomat i Telemekh, Vol. 13, No. 5, p. 615, 1952

The Inst. of Automatics and Telemechanics, together with the All-Union Sci. and Tech. Society of Instrument Building and the All-Union Sci.-Res Inst. of Construction and Road Machine Building, sent a special brigade to the Volga-Don Canal in July 1952 to Generalize operating experience with automatic concrete plants.

PORTNOV-SOKOLOV, YU. P.
USSR.

2257. Portnov-Sokolov, Yu. P., On the motion of a hydraulic piston control under typical loads, Collection of work on automation and telemechanics by the Inst. of Automatics and Telemechanics; Akad. Nauk SSSR, 18-20, 1983, (Translation by M. D. Friedman, 2 Pine St., W. Cullford, Mass.)

Paper presents the results of a study made by a group of young Russian specialists of the Institute of Automatics and Telemechanics of the action of a hydraulic piston motor controlled by a spool valve.

A second-order nonlinear differential equation is derived for the motion of the piston. The effects of piston and liquid inertias, of dry and fluid friction, and of various types of piston load are included in the equation. The equation is studied by the phase-plane method. An expression for maximum velocity and graphs of useful power against piston path are obtained. Finally, idealized systems are considered and expressions derived for (a) optimum value of piston area, (b) time of piston travel, (c) maximum velocity of piston.

The paper is relatively easy to follow and the mathematics is not difficult. Reviewer feels this paper to be a useful contribution to the field of hydraulic-control literature.

W. A. Wolfe, Canada

TOPCHIIYEV, A.V., akademik, glavnyy redaktor; PETROV, B.N., otvetstvennyy redaktor; AYZERMAN, M.A., redaktor; BERNSHTEYN, S.I., redaktor; VASIL'YEV, R.V., redaktor; IVANOV, V.I., redaktor; KARAGODIN, V.M., redaktor; KOGAN, B.Ya., redaktor; LETOV, A.M., redaktor; ~~PORTNOV, SOKOLOV, Yu. P.~~, redaktor; SOLODOVNIKOV, V.V., redaktor; ~~ULANOV, G.M.~~, redaktor; TSUPKIN, Ya.Z., redaktor; KRUTOVA, I.N., redaktor; ASTAF'YEVA, G.A., tekhnicheskiiy redaktor

[A session of the Academy of Sciences of the U.S.S.R. on scientific problems in automatization of production, October 15-20, 1956; principal problems of automatic control] Sessia Akademii nauk SSSR po nauchnym problemam avtomatizatsii proizvodstva, 15-20 oktiabria 1956 g.; osnovnye problemy avtomaticheskogo regulirovaniia i upravleniia. Moskva, 1957. 334 p. (MLRA 10:5)

1. Adakemiya nauk SSSR. 2. Chlen-korrespondent AN SSSR. (for Petrov)
(Automatic control)

BABAKOV, N.A.; GAVRILOV, M.A.; IL'IN, V.A.; KULEBAKIN, V.S.; LERNER, A.
Ya.; LETOV, A.M.; PORTNOV-SOKOLOV, Yu.P.; SOTSKOV, B.S.; TRA-
PEZNIKOV, V.A.; TSYPKIN, Ya.Z.

Academician B.N. Petrov; on his 50th birthday. Elektrichestvo
no.10:92 0 '63. (MIRA 16:11)

PORTNOV, V., sud'ya respublikanskoy kategorii

Youths on the firing line. Voen.-znan. 41 no.12:38-39

D '65.

(MIRA 18:12)

PORTNOVA, Anna Timofeyevna

PHASE I BOOK EXPLOITATION

976

Shreyner, Leonid Aleksandrovich, Petrova, Ol'ga Pavlovna, Yakushev, Vasil'y Petrovich, Portnova, Anna Timofeyevna, Sadilenko, Konstantin Mikhaylovich, Klochko, Nikolay Aleksandrovich, Pavlova, Nina Nikolaevna, Balandin, Pavel Stepanovich, Spivak, Aleksandr Ivanovich

Mekhanicheskkiye i abrazivnyye svoystva gornykh porod (Mechanical and Abrasive Properties of Rocks) Moscow, Gostoptekhizdat, 1958. 200 p. 3,000 copies printed.

Gen. Ed.: Shreyner, L.A., Professor; Executive Ed.: Kovaleva, A.A.; Tech Ed.: Polosina, A.S.

PURPOSE: The book is intended for scientists, engineers and technicians engaged in drilling operations in the petroleum and mining industries.

COVERAGE: The book describes methods of evaluating the mechanical properties of rocks by means of the stamp-pressing technique. This method makes it possible to determine simultaneously the hardness, plas-

Card 1/6

Mechanical and Abrasive (Cont.) 976

ticity, and elastic modulus of rocks. Rocks of different mineralogical composition and structure are described and classified by their abrasive properties. Basic factors in the relationship of wear on the mineralogical composition, load, and speed of rotation are shown. A classification table of sedimentary rocks is also given. The information provided in the book should promote the better use and design of drilling instruments, and operational procedures in different geologic media. Professor V.V. Zaleskiy is cited as having made important contributions to this field. There are 64 diagrams, 70 tables, and 39 bibliographic references, of which 28 are Soviet, 3 German and 8 English.

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Card 5/6	

SHREYNER, Leonid Aleksandrovich; PETROVA, Ol'ga Pavlovna; YAKUSHEV, Vasilii Petrovich; PORTNOVA, Anna Timofeyevna; SADILENKO, Konstantin Mikhaylovich; KLOCHKO, Nikolay Aleksandrovich; PAVLOVA, Nina Niko'layevna; BALANDIN, Pavel Stepanovich; SPIVAK, Aleksandr Ivanovich; KOVALEVA, A.A., vedushchiy red.; POLOSINA, A.S., tekhn. red.

[Mechanical and abrasive properties of rock] Mekhanicheskie i abrazivnye svoistva gornyykh porod. Pod obshchei red. L.A. Shreiner. Moskva, Gos. nauchno-tekhn. izd-vo nef. i gorno-toplivnoi lit-ry, 1958. 200 p. (MIRA 11:8)

(Rocks)

Portnova, A.T.
AID P - 3620

Subject : USSR/Mining
Card 1/1 Pub. 78 - 4/20
Authors : Shreyner, L. A., V. P. Yakushev, O. P. Petrova and A. T. Portnova
Title : Classification of rocks according to their mechanical characteristics
Periodical : Neft. khoz., v. 33, #10, 15-23, 0 1955
Abstract : The author makes an analysis of the purely mechanical characteristics of rocks that are important for proper use of drilling equipment in penetrating the formations. An apparatus is described which was used to determine the compressive strength, resilience, plasticity and breaking point of brittle, plastic-brittle, and non-brittle rocks. Some data of those tests are given. 4 references, 1949-1955.
Institution : None
Submitted : No date

SHREYNER, L.A.; YAKUSHEV, V.P.; PETROVA, O.P.; PORTNOVA, A.T.

Classification of rocks according to mechanical properties.
Neft.khoz.33 no.10:15-23 O '55. (MLRA 9:1)
(Rocks--Analysis) (Boring)

PORTNOVA, G.Ya. [Portnova, H.IA]

Adenovirus lesions of the eyes in children; according to data
from some preventive institutes in Kiev. Ped., akush. i gin.
24 no.1:28-30'62. (MIRA 16:8)

1. Dityacha likarnya Podil's'kogo rayonu m.Kiyeva (gologniy
likar K.Yu.Butko).
(EYE—DISEASES) (ADENOVIRUS INFECTIONS)

L 45966-66 EWT(1)/EWT(m) SCTB JKT/DD/RD/JT/GD/JXT(CZ)
ACC NR: AT6030697 SOURCE CODE: UR/0000/66/000/000/0081/0084

AUTHOR: Cherkasov, V. K.; Ushakova, G. S.; Piguzova, L. I.; Devyatko, A. V.;
Mokhov, V. G.; Solov'yev, V. I.; Portnova, K. M.; D'yakonov, R. V.; Martynova, R. A.;
Ratts, L. B.

ORG: none

TITLE: The possibility of using the multifunctional properties of zeolites in a
physical and chemical air-regeneration system

SOURCE: Konferentsiya po kosmicheskoy biologii i meditsine, 1964. Materialy. Moscow,
Inst. mediko-biol. problem, 1966, 81-84

TOPIC TAGS: life support system, closed ecological system, space biology

ABSTRACT: A physical-chemical air "regeneration" system which has been proposed for
manned spaceflight is shown in Fig. 1. In this system CO₂ is removed from cabin air
by adsorption on zeolite. The carbon dioxide then undergoes vacuum desorption from
the zeolite and passes through a CO₂ collector to the catalytic reactor, where it
is reduced with hydrogen from the electrolyzer to water and methane. The water returns
to the electrolyzer and is broken down into oxygen (used for human
respiration) and hydrogen. The disadvantages of this method are the difficulties of
creating a vacuum on board a spacecraft and the additional electrical energy required
to operate the CO₂ collector. Studies have shown that specially treated B-zeolite

Card 1/3

L 45966-66

ACC NR: AT6030697

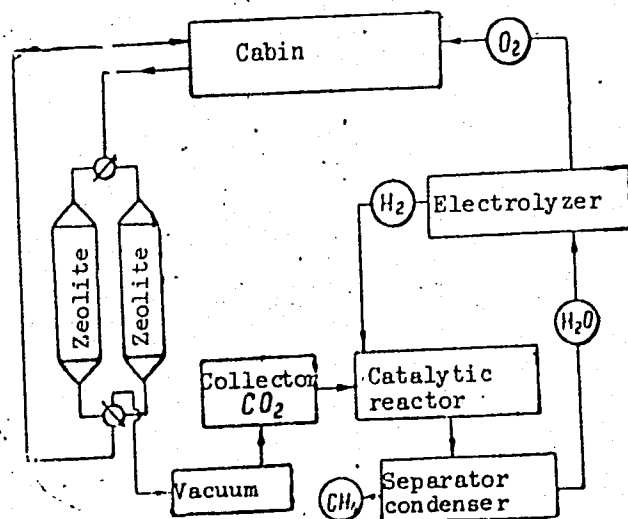


Fig. 1. Schematic diagram of a physical and chemical air "regeneration" system

can be used in such a system for both sorption and catalysis, retaining its properties through a number of cycles. An improved air "regeneration" scheme using B-zeolite is shown in Fig. 2. Cabin air is purified by passing through a B-zeolite

Card 2/3

L 45966-66

ACC NR: AT6030697

0

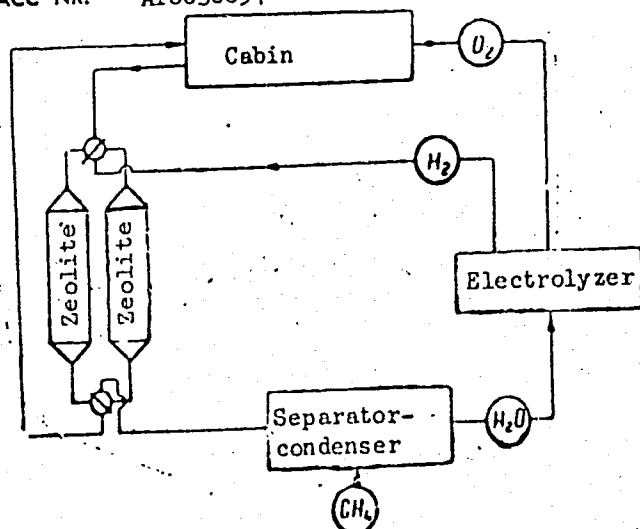


Fig. 2. Schematic diagram of a physical-chemical air "regeneration" system using B-zeolite

adsorber. Hydrogen derived from electrolysis is then passed through zeolite in a second adsorber, simultaneously desorbing CO₂ and reducing it to water and methane. The water is electrolyzed as in the first system. Temperature regulation is very important for the successful operation of this system, since a 7—12C temperature variation alters the gas conversion level by 10—15%. Orig. art. has: 3 figures.[JS]

SUB CODE: 06/22/ SUBM DATE: 14Apr66/ ATD PRESS: 5086
Card 3/3

PORTNOVA, L.F.

Some data on the diagnostic value of tuberculin tests in a
clinic for tuberculosis of children. Zdrav.Tadzh. 9 no.5:9-12
'62. (MIRA 15:12)

1. Iz kafedry detskogo tuberkuleza (zav. - doktor med.nauk
E.Z.Sorkina) Tadzhijskogo meditsinskogo instituta imeni Abuali
ibni Sino.

(TUBERCULIN--TESTING) (TUBERCULOSIS)

GEL'FAND, Yu.S.; PORTNOVA, M.I.; CHURINA, A.A.

Analysis of increased navigation in 1961 in the lower Yenisey.
Probl. Arkt. i Antarkt. no.12:127-130 '63. (MIRA 16:7)
(Yenisey River—Navigation)

PORTNOVA. M.N.

Combines (Agricultural Machinery)

Book on self-propelled combines ("Self-propelled combine." reviewed by P. Novozhilov).
MTS 12 No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952, ~~1953~~. Unclassified.

PORTNOVA, M. S., CAND AGR SCI, "VARIATION^{ability} IN THE MILK PRO-
DUCTIVITY OF COWS IN RELATION TO THEIR^{types of} CONSTITUTION, BODY BUILD
AND THE PROTEIN COMPOSITION OF THE BLOOD." KISHINEV, 1961.
(MIN OF AGR MSSR. KISHINEV AGR INST IMENI M. V. FRUNZE).
(KL-DV, 11-61, 225).

-219-

KOTOVA, G.N., PORTNOVA, N.G., (Rostov-na-Donu)

Case of the abdominal form of lymphogranulomatosis [with summary
in English]. Arkh.pat. 20 no.8:70-72 '58 (MIRA 11:9)

1. Iz klinicheskoy gorodskoy bol'nitsy No.1 Rostova-na-Dony
(glavnyy vrach A.V. Goreshtnyak, nauchnyy rukovoditel' - prof. V.N.
Slyshko, zav. patologo-anatomicheskim otd. - prof. Sh.I. Krinitskiy).
(HODGKIN'S DISEASES, in aged,
abdom. case (Rus))

SIDORENKO, I.G.; PORTNOVA, N.G.

Rare case of primary tuberculosis of the digestive tract in a 1-year-old child. *Pediatrics* 38 no.12:71-72 '60. (MIRA 14:2)

1. Iz detskoy kliniki Nauchno-issledovatel'skogo instituta akusherstva i pediatrii (dir. - F.S. Baranovskaya, nauchnyy rukovoditel' - prof. I.Ya. Serebriyskiy) i proektury (zav. otdeleniyem - prof. Sh.I. Krinskiy) 1-y gorodskoy bol'nitsy (glavnyy vrach A.V. Goresnyak).

(ALIMENTARY CANAL--TUBERCULOSIS)

PORTNOVA, N. T.

Portinova, N. T. "The feeding and keeping of pregnant foxes and minks", (From the working experience of the Pushkinskiy fur state farm in 1948), Karakulevodstvo i zverovodstvo, 1949, No. 1, p. 48-50.

SO: U-3042, 11 March 53, (Letopis'nykh Statey, No. 10, 1949),

PORTNOVA, N. T.

"Experimental Shortening of the Period of Embryonic Development in Sables." (p. 260)
by Belya ev, D. K., Fereldik, N. Sh. and Portnova, N. T.

SO: Journal of General Biology XII (Zhurnal Obshchei Biologii) Vol. XII, No.4, 1951.

PORTNOVA, N.T.
BELYAYEV, D.K.; PEREL'DIK, N. Sh.; PORTNOVA, N.T.

Experimental reduction of the embryonal development period of
sables *Martes zibellina* L. Zh. obsh. biol. 12 no.4:260-265
July-Aug 1951. (CML 20:11)

1. Central Scientific-Research Laboratory for the Growing of
Fur-Bearing Animals of the Ministry of Sovkhozes USSR.

PORTNOVA, O.V.

Bridging on SD-1 stereographs. Geod. i kart. no. 10:29-34 0 '62.
(MIRA 15:12)

(Aerial photogrammetry)

GERTSENOVA, K.N.; PORTNOVA, O.V.

Results of investigating the accuracy of intersections by the use of
the SD-1 stereograph. Geod. i kart. no. 3:19-24 Mr '61.
(MIRA 14:4)

(Aerial photogrammetry)

PORTNOVA, S.I.

ARIFOV, R. A., KOPILOVA, D. K., LYUBIMOV, V. B., NIKITIN, A. V., PODGORITSKIY, M. I.,
PORTNOVA, S. I., RIBAKOV, H., STELTSOV, V. N., TIKH, S., and SHALONSKAYA, A. I.
RISAYEV, G.

"Inelastic Interactions of π^- Mesons with Nucleons at 7 Gev"

report presented at the Intl. Conference on High Energy Physics, Geneva,
4-11 July 1962

Joint Institute for Nuclear Research,
Laboratory of High Energy, Dubna, 1962

KOST, A.N.; SUGROBOVA, I.P.; KRASNOVA, V.A.; PORTNOVA, S.L.

Stereochemistry of 2- and 6-alkyl-2-phenylcyclohexanes.
Zhur. ob. khim. 34 no.7:2416-2421 J1 '64 (MIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova

YAKHONTOV, L.N.; MASTAFANOVA, L.I.; PORTNOVA, S.L.; RUBTSOV, M.V.

Synthesis of 3-vinylquimuclidine. Dokl. AN SSSR 162 no.5:1075-1078
Je '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut im. S.Ordzhonikidze. Submitted November 2, 1964.

MEL'NIKOV, N.N.; GRAPOV, A.F.; RAZVODOVSKAYA, L.V.; PORTNOVA, S.L.

Herbicides and plant regulators. Part 43: Reaction of N,N-dimethylamidomethylphosphonyl chloride with anilines. Zhur. ob. khim. 35 no.10:1771-1774 O '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zashchity rasteniy.

KOGAN, Leonid.M.; ULEZLO, I.V.; KOZLOVA, I.K.; SUVOROV, N.N.; PORTNOVA, S.L.
SKRYAGIN, G.K.; TROGOV, I.V.

Microbiological transformations of steroids. Report No.3: Reduction of 17 α , 21-deoxysteroids by *Actinomyces albus* 3006. Izv. AN SSSR Ser. khim. no.11:2008-2015 N '64 (MIRA 18:1)

1. Institut khimii prirodnikh soyedineniy AN SSSR i Institut mikrobiologii AN SSSR.

KOST, A.N.; MITROPOL'SKAYA, V.N.; FORTNOVA, S.L.; KRASHOVA, V.A.

Keto acids of the indole series. Zhur. ob. Khim. 34 no.9:2969-
2992, 1964. (MIRA 17:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova
1 Institut khimii prirodnikh soyedineniy AN SSSR.

L 04262-67 EWT(1)/EWT(m)/EWP(j)/T/EWP(k)/EWP(1) IJP(c) WG/RIW/RM

ACC NR: AP6030020

SOURCE CODE: UR/0020/66/169/005/1083/1086

AUTHOR: Dvoryantseva, G. G.; Yur'yeva, L. P.; Portnova, S. L.; Sheynker, Yu. N.;
Nesmeyanov, A. N. (Academician) 42 B

ORG: Institute of Chemistry of Natural Compounds, Academy of Sciences SSSR (Institut
khimii prirodnikh soedineniy Akademii nauk SSSR); Institute of Hetero-Organic Com-
pounds, Academy of Sciences SSSR (Institut elementoorganicheskikh soedineniy Akade-
mii nauk SSSR)

TITLE: Proton magnetic resonance spectra of disubstituted ferrocenes 1

SOURCE: AN SSSR. Doklady, v. 169, no. 5, 1966, 1083-1086

TOPIC TAGS: proton resonance, ferrocene, analytic chemistry, spectrum analysis

ABSTRACT: The proton magnetic resonance spectra of 25 heteroannular disubstituted ferrocenes with various substituents in both rings were taken and the rule of additivity of chemical shifts of the ring protons was established. The structure of several homoannular isometric amides of methyl- and ethylphenyl-ferrocene carboxylic acids and nitriles of ethyl- and phenyl ferrocene carboxylic acids was defined on the basis of the PMR spectra. The PMR spectra were measured using 10% solutions in CCl₄ and CDCl₃ and a JNMC-60 spectrometer with an operating frequency of 60 megacycles. In all cases excellent agreement was observed between the experimentally determined chemical shifts

Card 1/2

UDC: 538.113+547.13+546.72

L 04262-67

ACC NR: AP6030020

for the ring protons and the chemical shifts calculated using the additivity rule.
Orig. art. has: 2 tables.

SUB CODE: 07/ SUBM DATE: 12Feb66/ ORIG REF: 004/ OTH REF: 003

Card 2/2 fv

BOTVINKIN, O.K., prof.; VOROB'YEVA, O.V.; PORTNOVA, V.A.

Insulating the electricity-conducting coating on glass. Stek.
i ker. 18 no. 1-16-18 Ja '61. (MIRA 14:1)
(Glass—Electric properties) (Protective coatings)

15.8114

S/072/61/000/001/001/000
BOZ1/BO24

AUTHORS: Botvinkin, O. K., Professor, Vorob'yeva, O. V., Portnova, V.A.

TITLE: Insulation of Conductive Glass Coatings

PERIODICAL: Steklo i keramika, 1961, No. 1, pp. 16-18

TEXT: The Institut stekla (Glass Institute) made an investigation to find transparent varnishes capable of insulating glasses with conductive surface. Among organic compounds, polyamide resin and 124-БЭИ (124-VEI) varnish gave the best results. Polyamide films, however, have a poor mechanical stability. From among a great number of organosilicon compounds, the authors tested varnishes K-47 and K-60; K-47 was found to have insufficient mechanical stability, and is therefore not recommendable as an insulating material. Upon recommendation by the nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry), the organometallic compound КЕС (КБ3) and the organosilicon resins П-4 (P-4), П-5 (P-5), П-20 (P-20), and П-40 (P-40) were added to the varnish, which, however, did not increase the mechanical stability of K-47. K-60 varnish shows good insulating properties. A table

Card 1/2

/B

Insulation of Conductive Glass Coatings

S/072/61/000/001/001/005
B021/B054

compares the hardness characteristics of films of the two best varnishes K-60 and 124-VEI on glasses with a semiconductor tin-dioxide layer. Films of K-60 varnish are transparent, heat-resistant up to 200°C, water-repellant, adhere well to glass, but have a relatively low hardness value. Films of 124-VEI varnish are very hard, heat-resistant, and water-repellant. Because of their color they can only be used in cases where a high transparency is not required. There is 1 table. /B

Card 2/2

68267

SOV/81-59-10-34623

5.5310

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 116 (USSR)

AUTHORS: Maslennikov, B.M., Romanova, L.V., Portnova, V.N.

TITLE: Determination of Selenium by the Spectral Method

PERIODICAL: Tr. Gos. n.-i. in-ta gorno-khim. syr'ya, 1958, Nr 4, pp 239-241

ABSTRACT: A method has been described for the semi-quantitative determination of Se in ores with the excitation of the spectrum in an a-c arc at 8 a and with evaporation of the substances from the opening of the Cu-electrode. On the butt of the Cu-electrode of 5 mm in diameter an opening 3 mm deep and 4 mm in diameter is drilled, into which the sample is placed. The arc gap of 3 mm is placed at the slit of the medium-sized ISP-22 spectrograph. At a slit width of 0.07 mm and an exposure of 2 min the sensitivity of Se determination is 0.01% from the line 2039.89 A. The line Te 2039.79 A does not impede the analysis, but the presence of Sb in the concentration of > 0.5% causes considerable obstructions. The spectra are photographed on "spectral" plates of type 2, sensibilized by immersion for 2 min in a freshly-prepared 5% ethanol solution of Na salicylate. The dried plates are kept up to 4 - 5 months without change. Plates of type 3 are not suitable

Card 1/2

68267

Determination of Selenium by the Spectral Method

309/81-59-10-34623

for determination of Se. The standards are prepared on CaCO_3 base or on sulfurous ore with the introduction of elemental Se. The method of the photometry of the lines is not indicated.

G. Kibisov

Card 2/2

LEBEDEV, P.V.; PORTNOVA, E.A.; SKINDER, V.S.

Interrelations among the components of grass mixtures.

Zap. Sverd. otd. VBO no.2:33-40 '62. (MIRA 16:8)

ABRAMOVA, M.V.; BORMOVA, O.V.

Examination of the SPK-0, SL-1, and SL-2 all-purpose instruments.
Geol. 1 kart. no.9:45-54 S 164. (MIRA 17.12)

SMIT, V.A.; SEMENOVSKIY, A.V.; BRUNOVLENSKAYA, I.I.; PORTNOVA, S.L.;
KUCHEROV, V.F.

Nonenzymatic stereospecific cyclization of isoprenoids, Dokl.
AN SSSR 160 no.4:849-852 F '65. (MIRA 18:2)

1. Submitted July 28, 1964.

L 46186-65 EWT(1)/EWT(m)/EPF(c)/EWP(j)/EEC(t) Pc-4/Pr-4/Pi-4 IJP(c)
WJ/GG/EM

ACCESSION NR: AP5007562

S/0020/65/160/005/1075/1078

AUTHOR: Dvoryantseva, G. G.; Portnova, S. L.; Grandberg, K. I.; Gubin, S. P.;
Sheynker, Yu. N.; Nesmeyanov, A. N.

TITLE: Nuclear magnetic resonance spectra of ferrocene derivatives

SOURCE: AN SSSR. Doklady, v. 160, no. 5, 1965, 1075-1078

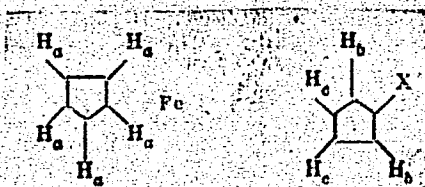
TOPIC TAGS: nuclear magnetic resonance, ferrocene, proton resonance, Hammett constant, cyclic compound, cyclopentadienyl metal

ABSTRACT: The authors measured the chemical shifts of proton signals in high-resolution nuclear magnetic resonance spectra of mono- and heteroannular disubstituted ferrocenes, using 10-15% solutions in CCl₄ and an INM-C-60 nuclear magnetic resonance spectrometer. In the proton resonance spectra of all monosubstituted ferrocenes, a singlet is produced by the five equivalent protons of the unsubstituted five-membered ring, and two triplets are produced by the (b) and (c) protons of the substituted ring with a spin-spin interaction constant J_{bc} 1.5 cps.

Card 1/3

L 46186-65

ACCESSION NR: AP5007562



It was found that the chemical shifts of protons of the unsubstituted ring are chiefly determined by the induction effect of the substituents. The observed values of the shifts δ_b and δ_c indicate a considerable effect of the conjugation of the substituent on the chemical shifts of protons of the substituted ring. Correlations are presented between the values of $\delta_b - \delta_c$ and the conjugation constants of the substituents, between the chemical shifts δ_c and the induction constants of the substituents, and between the chemical shifts of protons of the substituted rings and the Hammett constants σ of the substituents. The results of the study make it possible to draw a close analogy between the magnitude and character of the influence of the substituents on the (a), (b), and (c) hydrogen atoms of the ferrocenyl nucleus, and correspondingly on the meta, ortho, and para hydrogen atoms of the phenyl nucleus. Orig. art. has: 3 figures, 2 tables, and 5 formulas.

Card 2/3

L 46186-65

ACCESSION NR: AP5007562

ASSOCIATION: Institut khimii prirodnikh soedineniy Akademii nauk SSSR (Institute of Chemistry of Natural Compounds, Academy of Sciences SSSR); Institut elemento-organicheskikh soedineniy Akademii nauk SSSR (Institute of Organometallic Compounds, Academy of Sciences SSSR)

SUBMITTED: 20Jul64

ENCL: 00

SUB CODE: NP, OC

NO REF SOV: 007

OTHER: 004

ml
Card 3/3

AUTHORS: Shvarts, D.M., Portanova, V.V.

32-21-6-20/44

TITLE: The Spectral Analysis of Tin of Especial Purity by Previous Enrichment (Spektral'nyy analiz olova osoboy chistoty s primeneniye predvaritel'nogo obogasheniya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 6, pp 731-734 (USSR)

ABSTRACT: The senior laboratory assistant V.M.Davydova assisted in carrying out this work. As the enrichment methods known from publications, especially concentration by evaporation cannot be used with success for the enrichment of tin, stannic chloride is taken because of its high degree of volatility which differs considerably from that of the chlorides of other admixtures. Chlorination is carried out in such a manner that the crushed sample is placed into carbon tetrachloride and chlorine is introduced. Separation of the chlorides obtained is carried out with the aid of active carbon, the quality "acid type B" (GOST 4453-48) being used; it was found in this connection that the presence of iron in the carbon disturbs the determination of antimony. Four etalon groups were prepared for the analysis according to a special method. After chlorination and enrichment by active carbon the latter is spectrographically

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The Spectral Analysis of Tin of Especial Purity
by Previous Enrichment

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investigated with the adsorbed admixtures, for which purpose a spectrograph ISP 22 with a length of arc of 3 mm was used and measurements were carried out according to the calibration diagram of the etalons. This method makes it possible to determine admixtures of up to $1 \cdot 10^{-4}\%$, the average error found amounting to 19-25%; it is pointed out that the error limits found are relatively high, but that the method is suited for the control of tin of high purity. There are 2 figures, 2 tables, and 7 references, 6 of which are Soviet.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proektnyy institut "Gipronikel'" (State Scientific Research and Planning Institute "Gipronikel'")

1. Tin--Spectra
2. Chlorides--Separation
3. Carbon--Performance
4. Antimony--Determination

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SHVARTS, D.M.; PORTNOVA, V.V.

Spectrum analysis of high-purity lead. Fiz.sbor. no.4:493-
497 '58. (MIRA 12:5)

1. Institut "Gipronikel", Leningrad.
(Lead--Spectra)

Portnova, V.V.

24(7)

PHASE I BOOK EXPLORATION

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L'ov. Mlveratet

Materialy I Vsesoyuznogo soveshchaniya po spektroskopii, 1956.
I. II. *Zhurnaly spektroskopii* (Materials of the 10th All-Union
Conference on Spectroscopy, 1956. Vol. 2: Atomic Spectroscopy)
Moscow: Izdat. vuz. L'vovskogo univ., 1958. 568 p. (Series: *Ist.*
Fizicheskoy sbornik, vyp. 4(9)). 3,000 copies printed.

Additional Sponsoring Agency: Akademiyu nauk SSSR. Komissiya po
spektroskopii.

Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.);
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PURPOSE: This book is intended for scientists and researchers in
the field of spectroscopy, as well as for technical personnel
using spectrum analysis in various industries.

CONTENTS: This volume contains 177 scientific and technical studies
of atomic spectroscopy presented at the 10th All-Union Confer-
ence on Spectroscopy, 1956. The studies are divided into two sec-
tions on spectroscopy and technical institutes and include
extensive bibliographies of Soviet and other sources. The
studies cover many phases of spectroscopy: spectra of rare earths,
electromagnetic radiation, physicochemical methods for controlling
uranium production, physics and technology of gas discharge,
optics and spectroscopy, abnormal dispersion in metal vapors,
spectroscopy and the combustion theory, spectrum analysis of ores
and minerals, photographic methods for quantitative spectrum
analysis of metals and alloys, spectral determination of the
hydrogen content of metals by means of isotopes, tables, and
atlases of spectral lines, spark spectrographic analysis,
statistical study of variation in the parameters of calibration
curves, determination of traces of metals, spectrum analysis in
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practice of spectrochemical analysis.

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